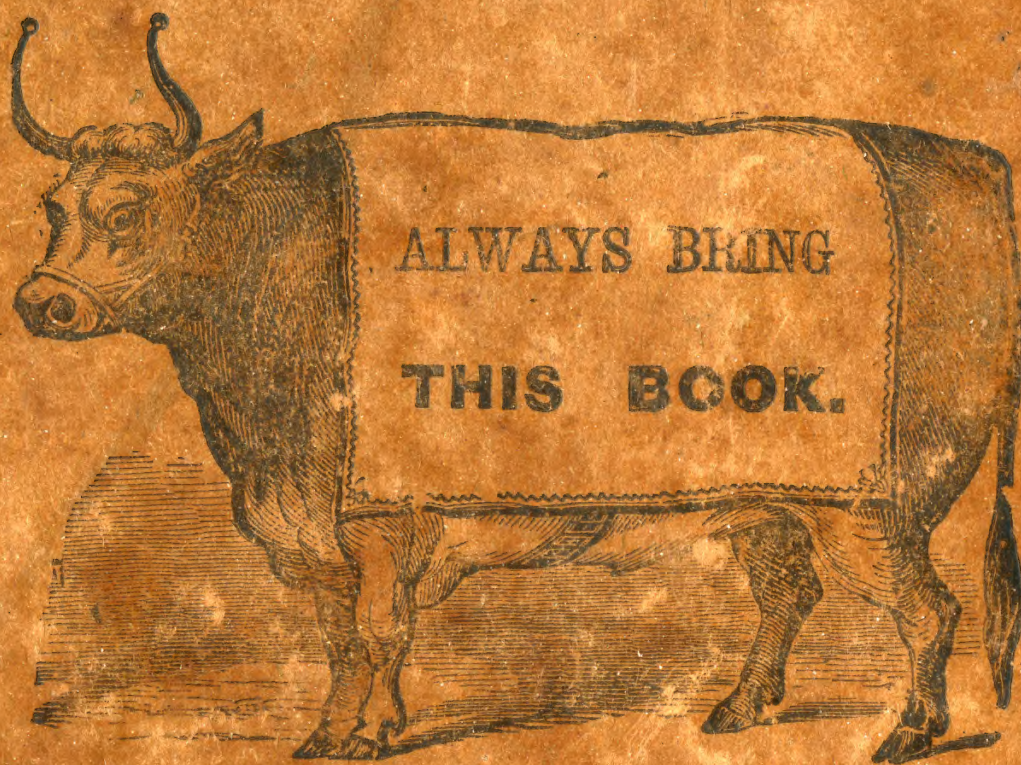


SAW FLY BOOK

31-40

ALL BILLS SETTLED MONTHLY.



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Of all kinds in their season, at lowest cash prices.

Goods delivered promptly, free of expense.

31

1 little of ^{sheep} on Laurel Plattsburgh Jan 12
1894. Hd testaceous marked with
black, ocelli black, shiny. Body
translucent yellowish. al. canal
showing its color reddish and
brownish part. Feet 6-11, 13, the
feet largely blackish. Segs shiny
scarcely annulate with 2 rows
of minute black tubercle dots
a larger one s-v and on outer
side of abd. foot. Hd. 6 mm

3J

One solitary on Linden Planting
June 14, Hd 1.8 greenish testaceous
minutely brown dotted above, the
dot segregating into a black brown
band from ocellus $\frac{3}{4}$ to vertex. Ocelli
black, mouth brown. Segs irregularly
folded 2-3 annulate, slight
shiny smooth leaf green. No
feet clear. Abd feet 6-11, 13; no
prongs

OUT

3K



On *Spiraea salicifolia* bush by
road side.
eating the young leaves. No. 1
June 17, 98 Keene Valley, N.Y.
a. sh hd 1.2 Hd 1.2 pale greenish, not
shiny, mouth brown, ocelli black
a spot. Feet 6-12, 13 post, the a little
largest, legs very slightly flattened
ventrally, a tapering post, resting
flat on venter. Several little
white pointed elevations, like sharp
teeth, with 2 cusps. Two of them ad of,
two sd, a single 1 cusp dot lat and
3 in a Δ sty post and 6 on 8-10 feet
Roof all pale bluish green, not shiny
close like leaf. Tracheal line
evident. molt 1.2 4.5 caramel
testaceous, hardly shiny. eye black. Roof
smooth, 5 annulate, pale yellowish
green, scarcely shiny and rather opaque
Images Apr 14 1895. *Blennocampa* n. sp.

OUT

3L

On alder, singly stretched and flat
on upper side of leaf. Keene belly.
June 17/94 Smooth, not shiny, pale
leaf green covered with white bloom.
Segs 6-annulate. Slightly largest
through thorax, smaller feet. The
feet not large, just visible from
d. aspect, abd 6-12, 13 post.

Hd with white bloom, eye a black
spot. Width 1.2 mm. Same 18 mm long
Hds 1.0 smaller, same size hd 1.4

Molt June 20 Hd 1.45 (sh hd 1.45) no white
bloom. Body smooth slightly
shiny pale green, a little
yellowish, and rather opaque
head less green, eye black. Later
all uniform pinkish paraffin color
Images Apr 22 1895

Pocilosoma inferentia
Went

Pocilosoma tibiale (Went)
(Mantel)

OUT

Heinatus

3M

Under bark of white birch. R. June 18
Feet 6-11, 13. Ants small, the underco
spreading. Hd 1.5 white, scarcely
shiny, eye black mouth brown, a
green tint from inside! Body
smooth, not shiny, fairly 4-
annulate. Translucent leaf green,
the pulsating edges of the dorsal
vein forming a geminate white
d. line, filled in with the darker
green blood. By means of a little
folded, giving them white bands
when retracted. Radial line
evident. The feet clean

Molt June 23 Hd 1.4 nothing with brown
dorsal. Body same but more shiny.
Others July 10 Hd with brown shadow up
from eye & blackish along anterior. Ant
end touched with crimson. Others same
Ant July 1894 but got label mixed, mixed?!
[passed 34d; called them 3S first] Another OK

Calc. .26 .38 .54 .77 1.1 nat. 7
 found .57± .8± 1.0±

3 N

Little on alder, flat & ventral and
 pumping under side, solitary, June 18
 Hd round, shiny black, pilose, w. 6 an
 feet 6-11, 13, the a little enlarged
 abd feet slightly spreading. Segs.
 distinct but rather faintly 3-annu-
 late, anna. 1 small, 2 and 3 with
 many pale setae so that the
 larva is pilose or hairy. Color
 translucent whitish with no
 yellow tint. Feet give a dark
 green band by transparency
 as far as 12. In 13 faeces shows
 black. Tho. feet faintly yellowish
 tinged.

[One 5 can Hd 1.1 green with many
 white hair dots, a conspicuous spot
 over clypeus; eye on black spot a
 dark patch above & behind it
 mouth brown. Body pale green densely
 covered with white setae]

July 4 June 19 Hd .5± Hd pale whitish
 with a black shade at side and
 vertex. Body whitish with a faint
 greenish tinge, denser hairy, the
 tubercles slight. It cannot give
 dark green shade. W. Hd. .8 ±
 July 5 Hd 1.0 Hd blackish brown dotted
 with a black patch at vertex and
 another on sides covering eye & reaching
 back to back of head; shiny pilose
 dorsal region olivaceous blackish
 2 and 5-6, ventral & feet, & 13 just
 translucent whitish, not shiny
 pilose, the hair arising from these
 places pale tubercles in each of the
 3 annulets. Hair rather short, pale
 (another same as little peach-like cherry)
 Spun from large cocoons of white silk
 between leaves June 29.

Cladius n. sp.

Out

30

11th inst of m 3K stuff, edge eaten.
Hd large 1.1mm greenish between, a
brownish blotch on clypeus, shining
ocellus black, mouth brown.
feet 6-11, 13. Body not shiny, pale
green, a little yellowish; faint
trace of annulets. Nuchal line
evident. 2. vessel green a faint
geminate white line. a very
uncharacteristic larva.

3P = 3W

Like 3G on alder. Kern valley June 20 '94
Solitary curled spirally on back of leaf
Hd 2.7 ± whitish below, a large black
cap over vertex, but all overspread
with white bloom; ocellus black
legs about 7-annulate, as distinct as
incisions, pale green covered with
little isolated white dots and
overspread with a white bloom.
Spiracles inverted cordate black
abd feet 6-12, 13. Body largest near
head end, a little smaller just
molt June 23 Hd 3.6 (shld 2.8) Hd large
distinct yellowish white, ocellus black
Body mossy green thickly dotted with
white, 8-annulate, feet pale, spiracles
black. no bloom just like 3G

Another of *Copulasternulidae* hd 3.6 the
upper $\frac{2}{3}$ all black with slight bloom

[OUT] Nematode luterigen

3Q

Edge eaters, whackers on Alder K.V. 6/20
H¹ H² H³ all on edge gregarious, hd shiny
black, anterior of mouth pale feet
6-11, 13, black anal pump. Red shiny
green, yellowish on legs. Segs
obscurely annulate all minute
pilose but no distinct tubercles
a blackish s-d shade band and
also in 2 parts of s-v ridge: the feet
and anal plate shaded ^{with} dusky black
a median ventral series of black patches
^{last stage} H¹ H² H³ shiny dark vinous, eye
black, minute pilose. Red shiny reddish
greenish, rather dark, shaded more or
less with vinous especially s-v. Shiny
obscurely annulate, minute pilose. s. vent
a dark band. s-v ridge shows a blackish
line. The feet ^{partly} anal plate and
pump largely black.

29 out July 13 1894. Body brownish red
when fresh, color of 4H

3R On Pteris Jefferson Highlands N.H. June 16 1895 Hds.
1± and 1.4± no marker at all. Hds down to .6 same
by sweeping Pteris. Eye large, black. uniform green, d. & s-v
not contrasted. One went down hd 1.5 June 20

3R* (See 5GB cl)

On hake Pteris solitary flat on venter
on edge, thorax scarcely enlarged
feet 6-12 (3 post. Hd whitish with
reddish testaceous tinge, eye black,
mouth brown, shiny, some with
an obscure brownish shade at vertex
red not shiny, whitish, waxy but
appearing green except s-v from
the foot in alimentary canal. Segs
finely annulate, almost, but
indistinct: spiracle dark, tra-
cheal line white. Hds 1.4-1.1.
Stage hd 2.0 same but body actually
green, the tissues suffused with
an emerald green tint except feet
annulate. (A stage hd 2.2 H¹ same a
black patch behind eye and a
large one on venter. Slightly shiny
neatly annulate, emerald tinted
shading into waxy s-v and on
s.d. food darker green. Last

3R* Another in Otero, Jefferson Highlands, N.H. June 16 '94
Same but a blackish line connects ventral & lateral
patches and S-V orange yellow spot are large.

A. Another in Otero, Jefferson Highlands N.H. June 19 1895 - Hd 2.2 ± 8 prs
behind eye confluent with ab in vertex. Ochroma same.

Joint of the feet black. Nuchal
line evident; spiracles annulate
dark. Ventral pigment below
eye, short pointed pale. ^{Another ex 5L}
_{8-V.}

Hd 2.4* ^{hornish} Shiny whitish eye, mouth
dark; black shade behind eye
touching it; head shiny black
patch on vertex, pointed and, reach-
ing clypeus where it enlarges a
little. Body mostly annulate, light
emerald green d. (food not) waxy
on 2 and 13, S-V and on feet; last
2 joints of spreading the feet black
tipped a pair of black patches at
base of anal plate and a series of
light orange ones below the black
spiracles 3-12. Red very slightly shiny
May April 1895 etc

Strongylocaster annulatus

(majority) *Strongylocaster sordidatus*

**Strongylocaster luctuosus* (Mey)

(Book 4L) *Mermatus* n. sp. (Merrill)

4/30/96

3S

(cf. 11?)

P. protina

Shiny colored slips on wild cherry
Keene Valley, N.H. June 24, 1894 Hd very
pale testaceous, eye black. Body
colored, shiny streaky, feet showing
dark green; feet 6-12, all colored
including the feet. The a little
enlarged, its feet rather truncate
Hd 3 mouth brown. Hds .7, .55 mm
Molt June 27 Hd same .7 (Hd 1st)
Red not shiny, subopaque very pale
whitish ochraceous (long caramel color)
seg obscurely annulate with trans.
d. waxy areas. Feet blackish
in post half of body

More puncking underside of *Prunus pennsylvanica*
in small scattered patches, Jefferson Highlands
N.H. June 20 1895 Shiny streaky colored, or
very faint whitish greenish, feet distinct green,
not a large slip, no trace of blackish. Hd
very pale eye black One band caramel for ground
Sd on under never on upper surface.

Imago Apr 28 1896

Caliroa obsoleta

Others Rouses Pt. OUT 11. June 1895

Map Apr 22 1895 (+ 1/2, 4M)

Monophadnus rubri (2)

3T

See notes ^{larva} 11/12 are his ^{larva} furcate?

Flat on venter on raspberry leaves singly; fuzzy and green like the stems, which they closely resemble. Head rounded, mouth pointed, green. Palps, eye black, 1 w. 1 mm. Segs. obscurely 3-annulate, on 2^d and 3^d annulet a series of Y shaped ^{setae} processes the shaft strong, thick the limbs pointed, 3 on each annulet, above spiracle those on 2^d alternating 2^d placed each a little below the one on 2^d annulet, the lower one just in stig. line; 2 on upper part of S-V ridge (S-V ant) and 2 on the lower part (S-V post, below). The upper 2 on 2^d ann. & upper 1 on 3^d ann. have black limbs to Y; all the rest white. Feet 6-12, 13, body clean green a little yellowish. The feet clean with black tips. Head smooth, all translucent green, scarcely shiny. Hd 1.0 annulets with transverse inter areas & slight irregularities.

Egg on hazel in Concord Mass June 1895. Bluish white, shiny smooth, cylindrical the ends rounded OUT 1.5 x .5 mm. Saw cut egg just adhering to under surface.

3U

Enthom

Solitary web spinners on hazel but many in a bush, K.V. June 25 1894 each in a part of a leaf rolled over in a somewhat conical shape and filled with gummy web. Sometimes several in one leaf and then the rest of it is eaten up. (at least 1.5) Hd 1.4 rounded. Pale translucent beneath with brown shading. A long pointed antenna before and above the black eye. Mouth brown a trans. narrow black cd. No feet slender, pointed, unguis, abd. none but a pair of colored pointed processes S-V on joint 13. Venter a little flattened segs. indistinctly 4 annulate, transparent shiny greenish, no marks, al. cord giving a blackish shade. D. reel darker egg shells singly on back of leaf thin white skin, elliptical 1.4 x .5 mm in size.

Map Apr 16 1895 - *Lyda ochreata* Say

Calc. .61 .74 .96 1.3 1.75 Oct .74

Box back

OUT

3V

HD 1.5 eating hole
in leaf. All green
marked faint. eye
black

On white birch, eating edge eaten
allied to 3E, 3M but seems different
HD greenish eye black, along a dark
shade under median suture and
on clippers and a brown one from
ocellus upward, w. 1.3 mm. Body
like solution of chlorophyll, segs
4-annulate, indication of dusky tubi-
cle on 2-3 annulets (Feet 6-11) on
anal plate 2 short brown tipped
projections) segs folded, each side
a vessel a patch showing pale
yellow consisting of a collection of
(fat?) granules 5-12. [Staph 1.0]
Turned emerald green and used same
in the lab. seen. Jun 29.

Large hd 1.75 Same fat patches very plain
pale yellow consolidated into distinct
spots, end of 13 above & below deep
reddish

On Prunus serotina and Mt. Ash. Jeff N.
N.Y. 1895- This [or Cimex] eggs laid in leaf off
Max verticillate. Larvae hatched & used not eat.
Recognizing them. I got [OUT] willow which they at once
attacked voraciously. 3W

Ant new

Large like Cimex but marked like 3G
on willow. HD 4.5, light straw yellow
rounded, sharpened, not strong, a crease
before apex of each lobe: eye on black spot
a point behind for antenna. Red curled
sparsely green covered with white
dots. segs about 8-annulate, litse
seg. incisions, 2 layer white dots on 5-V
folds by segregation of small ones.
Spiacles erect cordate black
the ped large pale. black tipped
abd 6-12, 3 pale green, Red higher
than wide, slightly smaller post
another on Prunus serotina

Images April 20 1895- also Apr. 29 1896 !!

Trichosoma triangulum Kirby

HD from soon (parasitized) 3-5 mm -

Egg 3 together under lower epidermis. yellow, 3x4 mm in
small ones are from a large elliptical leaf on which 3x4 mm in
center of which is elliptical egg 2.5x1 mm. A colorless transparent skin
attached June 20. Hd 1.5 mm. Body white, brown & a general
blackish shade under it. Red curled whitish, annulate
with undulate brown. The fat clear. Black claws

29 the 3rd leafy
and 1st leafy
and 1st leafy

Ant May 11 1895 - Strongylogaster
punguis

eg 35	.6	1.1	1.4	2.0	2.0	
Col. 48	.67	.98	1.4	2.0	rat 70	On mt. ashi
			3Y			On Amelanchier canadensis Jefferson N. Miss. June 95

3X = M

of flat on venter on white high, K. V
June 27 1894 eating holes, solitary
W. pale testaceous, dryland dater,
not thing, eye black; w. l. l. mm
Thorax a little enlarged, feet sparsely
abd. slightly tapering, feet 6-11, 13
S-V ridge slightly tubercles giving
a faintly scalloped outline from
above. Segs 4-5 annulate, a little
folded out, otherwise not showing
color whitish with a pale green
tinge, the food giving the whole
except S-V a green of leaf color
no marks nor hairs.

20
7
14
2
98
7
686
7
802
7
3618

on white high
June 28 1894
the apex curiously
brown, feet below
black. The a little
13. segs black
a protruding
edge. Pale
go, and shiny, the
blackish, defined
edge. A pair of
flaps in place
black anal points
and point at
which, making
mouth, ocelli

seems to be not different from M.
Surely the same
Very more different, see 44
(They are not 44 which has markings
on head seen when very little)

black. 2 conical processes on first
annulus of 2 and a single median
one just behind them on 2nd
annulus of 2. On 13 a small 3rd
horn and 4 on edge of anal

3 X = 100

of flat on vent

June 27 1894

Not pole testis

not thing

Thorax a bit

abd. slightly

S-V ridges ab

a fairly oc

above. Legs

folded at

color white

tripe, the for

except S-V

no marks

Egg on black oak leaf, solitary on upper side; (found a branch taken for food plant) Irregularly elliptical, flat, 1.7×1.4 transparent. Ret. angular quadrangular, irregular, linear distinct in center light on empty part of shell. Before hatching dense swellings a little as a ring of air forms around the edge forming a white margin. Hatched July 30 *Strongylogaster pinguis* Hd .3 mm (The distinct reticulation are the spermathecal cells of the leaf; the swollen part is the collection egg in its slit)

Calc .34 .48 .69 .98 1.4 2.0 ult. VII

Seems to be

Surely the same

Very much different, see the

(They are not all which have been got

on head as when very little)

Ant May 4-11 1895 - *Strongylogaster pinguis*

egg .35 .6 1.1 1.4 2.0 2.0
Calc .48 .69 .98 1.4 2.0 not 2.0 on mt. ash
3Y On *Amelanchier canadensis* Jeff. Co. N.Y. June 95

Flat on vent, solitary on white birch and linden, N.Y. June 23, 1894

Hd .6 conical high, the apex acutely pointed, blackish brown. Pale below eye black, scarcely shiny. The a little enlarged, feet 12, 13. segs dorsal annulate, S-V region protuberant, shaded, close to leaf. Pale on vent oblongous, not shiny, the whole d. region blackish defined at the lateral edge. A pair of colules elevated flaps in place of c-sh. Small black anal points Hd .1.1 conical, round pointed at apex, suture indistinct, subrostrum and pale around mouth, scutell black 2 conical process on first annulus of 2 and a single median one just behind them on 2nd annulus of 2. On 13 a small sd point and 4 on edge of anal

Little Hd 3.5 but all black. Body smooth
ground on 2 indicated; annulate. Pleurae
siv a little scaly; pale green, feet dark green.
Eyes small, circular, same color under upper epidermis
middle of body

plate (but no plate) 5-7 folds
glutted with pointed concolorous
tubercles. Seps 6-annul 7 annulate +
with indication of pointed tubercles
sd, not shiny yellowish olivaceous
from the food showing through.
The pale yellowish body a
defined black ^{lateral} line beginning
on 2 behind the point and ending
on 13 behind the point. Then

4th Jun 30 Hd 1.8 also another found
Hd 1.5 Seps 6-annulate. Sd point
on 2nd and 4th annulate and 6 on
5-1 fold distinct. Otherwise same
Largest yet Hd 2.2 2 black - clear
at apex of head. Seps 6-annulate
same as in last stage. Eye black
3rd and went down July 11 (sh hd 1.8)

Same shape but smooth, no point, all
shiny, reddish yellowish color, no marks
Hd a shade more reddish than body
old have cross like brown shade

eg a slit on both side of stem of the
slender petiole of leaf. at first purple.
After 2 days Hd blackish 4-5 but all pale
sordid yellowish, with concolorous like spot.
not July 14 Same Hd 4 (sh hd 3) same but feet
more yellowish. not July 15 same
not July 17 not July 18 same 32 more yellowish
not July 21 Hd 1.5 not July 22 (sh hd 1.5) same
like N or Poplar gregarious (?) on back

of Populus tremuloides seen July 18, 1914.
July 1 1898. Hd 1.1 shiny black rounded,
mouth rather pointed, suture around
mouth pale. abd feet 6-11, 13 short
the feet just visible from above. Simple
recurved white hair, 4 to 5 from
low obscure concolorous wart, appearing
6 in 2 rows above the spiracle on
= indistinct annulate and other warts
obscure on 5-1 folds. Then a little en-
larged. Color not shiny yellowish
tinged with green from food and
belonging yellowish on thorax and 12
a row of little black dots 8-11 (after
absent) and a large row laterally on
one segment. 2 rows dark. Anal
plate concolorous with body.
not July 2 (sh hd 1.2) not July 1.5 Sd and head
short hairs black but anal plate yellowish
Hd after yellowish around suture
Color 2-3 4-5 6-7 8-9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Call. 24. 40

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4A

Shiny slug on poplar, appearing
all pale & colorless (shed before
described) Hd 1.0 mm.

molt not shiny but trans-lucant
cannal whitish as usual. Hd
pale with black eye.

This is the "improved" stage of 3F (q.v.) Larva at
Jefferson Highlands, N.H. Shows some very noticeable
after annulets except edge of 1st vessel. No whitish mark
space around green dot, eye black. Later with
black shading on annulets & spots on sides. Bred
(at least 1.5)

4B

Oct 3 1896

Solitary on back of willow leaf but
resembles edge eater. feet 6-11, 13
Soft, slightly shiny light green
of a green glass translucent opaque
color without any tinge of yellow.
All uniform head and all, W 1.8
Sept. 6 annulets, 2' & 3' annulet
much larger than the others. D.
vessel a shade darker its side
showing faint whitish; bristles
thin narrow, thread like. Spinal
annulets brown. Eye black. the
feet clear. Body uniform in size
a little smaller foot. Length 18 mm
joint 13 and is a little more opaque
whitish than the rest

54 paraffin color shaded with
blackish blotches on all the annulets
especially d. & 5th and a spot on the
sides; a little on top of head
Bred in cotton wool Aug 5

made by sweeping grass with a net. Vary a little in shade from ochraceous to greenish ochraceous. Younger ones the same in color Hds 2.2-2.3, 1.6-1.5
 Ash hd 1.85 - new hd 2.4

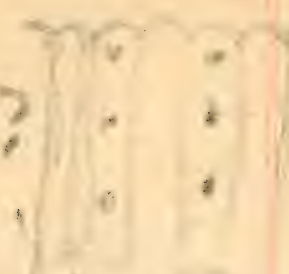
4C

On grass (after trying other) brought in by the little girls on a hat, Keene V. July 2 1894
 Hd large rounded, whitish ochraceous shining, eye black: w. imm. abd feet 6-12, 13, all distinct, the feet rather small, colorless except a brown line at base and lateral border. Body smooth, 6-annulate. And not conspicuously, the annulet faintly granular (under a lens only); scarcely shining ochraceous, no marks but the subventral line appears as a whitish band, rather broad and the dorsal vessel as a distinct olive gray band. Went down in pond.

On grass Jefferson Highlands, N.H. June 16 1895 Same
 Hd 2.2 lay for body a little conical, mouth brown. Beside the brighter ochraceous subventral line there is a defined but more obscure 5-d one contrasting faintly against the grayish dorsal vessel and lateral region.



! almost bc?



Periclytus? (HBB 1918)

4D

20/ on 3rd on seal! south end of Keene V. July 8 1894. Flat on venter. Head rather small black, clypeus mouth pale yellowish ^(sh hd 1.45) w. 1.4 in. Feet 6-12, 13; venter flat, white L no S-V ridge only foldings, neatly 6-annulate like venter. Pale gray above 2, red below apical and 13 feet light yellow; small tubercles on black dots on annulets 1+3 ad-d, lat, one on annulet 4 just atq, a list above, one on each S-V fold, and above post-bell. A series of segmental square clouded black patches lat at boundary of gray area. The feet short dusky, dorsal vessel a narrow dusky shade. Tubercles conical, the spots small, most distinct ~~most of 8~~ neatly annulate shiny smooth on black. 1 pale shaded gray above, eye black w. same. Body heavy above, 2, 8, 13 and 13 greenish

4 on ash Pecos Point N.Y. June 13 1895
 Hd & tho. feet black. Body white dorsally
 yellow s-v and on 2-3. No trace of green
 (not taken) observed May 20 Fort Lee N.Y. Spiny on wing
 N.Y. Ultima stage June 1* 4E .6 1.0 1.2 1.6 1.6

On young leaf of ash, K.V. July 5-94
 flat on center, allied to 4D
 Hd. black throughout, not very shiny
 smooth w 1.75 feet 6-13, body thick, side
 1, no ridge, 6-annulate but less
 distinct than incision, smooth
 slightly shiny, color opaque
 white with a leaden gray
 tinge, thin, a-v region to spiracle
 and 13, just faintly shaded with
 pale yellow. No head line evident.
 a layer of gray-white pigment
 seems to be much stier like a
 blanket over dorsal area nearly
 down to spiracles. Out Apr 12 1895

next I went down July 12 Sh. hd 1.6

(not seen) From J. J. May 27 1895 Hd 1.0 black

Body white translucent, not green
 a little yellow 2 and on 5th. The feet
 black. Sh. hd black. 6± Sh. hd
 May 29 Hd 1.2 greenish white, s-v yellow

Ultima stage June 1* 4E .6 1.0 1.2 1.6 1.6
 Hd. blackish, pale around mouth, eye, 3
 Body smooth shiny, 6-annulate, dusky silver
 gray to middle sides, below pale yellow. Thorax
 d. yellowish, anal end blackish. Thick, high Hd 1.62

Out (or 34) May 1 1895

Taxonus multicolor West
 On blackish Jefferson Highlands N.Y. June 29 1895
 Hd 7 Black on 1st joint. Body without markings but anal
 ft. black 5 only. Ant. edge of 2 distinctly scalloped
 Hd 5: pale brown a little 4E darker a vertex. Body immaculate
 whitish. feet shiny at the joint. anal plate inconspicuous. 2 ant
 apical spines: s-v slightly wavy.
 Flab on center, white beneath, K.V. N.Y.

Hd. 1 mm pale black lateral patch and
 most vertex shiny. This a little large, feet
 6-13 neatly 6? annulate not at all shiny
 all annuli white with faint trace
 1 shaded black 2d line. Foot joint
 Hd. 1.4± Pale brown, a large black patch
 over vertex not to clippers and a lateral
 one, mouth brown, scarcely shiny, body
 6-annulate, not shiny, smooth, tinged,
 a very broad olivaceous black s-d band
 irregular above and faint blackish
 markings in inflexed spots above s-v fold
 feet all pale, anal plate transverse
 black not shiny. 2 little ab. dots
 on annulet 1 of joint 2. a brown shade
 at apex of clippers.

Sh. hd 1.4
 July 12 faintest yellowish color beneath
 with striae and creosote brown
 the latter coming out in folds and
 ridges of hd. Shiny smooth, annulate

June 11 1895

Tenthredo cressoni

Two which seem to be the same as the one white high (dwarf) about 3 miles down the carriage road below Summit Ave. was hatched just where the trees first appear though still out of patches. Aug. 23 1895. There are a few more white points than described. 4 G color light ochre yellow green but no white spots just the same.

Green spiral curl on white birch, Kenne Valley, N.Y. July 7, 1894. Hd 2.0, 2.4. Hd very pale, slightly testaceous, shining a brownish ochraceous shade on vertex and under less by 3 pale lines, the middle one narrow. Seps 4-6 annulate, on 2 and 4 (on 1, 3) annulets [i.e. 1 and 6 annulets may be gone] some very minute white points (less on 2) on arm 2, 5 on arm 4 the last 5-5 and another sub 5 on arm 3; none on 5-r folds. Body and all, white with green tinge to pale yellowish green, quite translucent, a shaded red yellowish band composed of fat granules lying under the skin distributed on all the annulets. Food not showing greatly, ^{dark} claws of the feet brown, abd 6-13. The largest part but not nearly so. curls spirally and easily peels off. Molt July 12 (th. hd 2.0) Smooth shiny light green no tubercles, annulets, a row of red and light dark patches, others

Tenthredo
latifasciata
Cress

OUT

fly when fresh pale part of abd. of a fine brownish red not ochraceous brown as 4 H when dry.

allied to 3 Q, solitary on white birch Kenne Valley N.Y. July 9, 1894, edge center whorls. Hd brown brown, dotted with brown on vertex eye black w. 1.6 Body purplish brown tinted, a metallic red green shade over dorsum from food by transparency. Seps indistinctly 6-annulate shining, a lateral black shade hind scarcely noticeable against the metallic shade, supplemented by black granules on the folds around spiracles, 5-r are on bases of legs; the latter distinct against the pale purplish 5-r color. Feet all pale, yellowish tinged, abd 6-11. 13 small. Anal plate & short prongs black. Setae minute, seen on the legs. Went from July 10 to 12. 2 more taken July 13. Hd quite red, black on vertex shade orange same other as 3 (1.2 pale annulets slightly) and 1.7 mm. June. Aug 5 1894 900

4I

White on bush honeysuckle (*Diervilla trifida*) Keene Valley, N.Y. July 9 1884
Solitary, flat on venter or curled spirally. Hd whitish with a black shade over apex covered with white bloom. eye black w. 1.4
Segg 7. annulate, mostly like incisus, all whitish, covered with bloom, no marks. feet 6-13 all pale mouth brown.

Molt July 19 Hd 2.0 (th hd 2) 1st greenish
lutescent, body annulate mostly shiny yellowish green, uniform for pupation. eye black

stage Hd. 6 1/2 1st greenish, very pale points
fold darker like 3X but then spots on
head

(out)

4J

Closely similar to 4G in color but
without white points. Habits and
shape of M which I first thought it to be.
Hd slightly granular shagreened a little
pulise, pal brownish, pal around mouth
not shiny, eye a spot black, 2 blackish
shades on back of head above behind
vertex. w. 1.8 mm. Th a little enlarged
its feet spreading, venter flattened
feet 6-11, 13. S-V region slightly fluted
with a few pale lines. Segment
not very complete 5-6 annulate,
seg. vicesum folded; not shiny trans-
lucent, whitish; feet gray a dusky
tint. 5d below skin a series of small
green or pale green granules and streaks
forming a nearly continuous band (and a band)
Nuchal line evident. Spiracles pale.
7 and 8 pale yellowish with light brown
spots. 9 with a line of 4 pale spots on the hd

[92 3X] January - Apr 19 1885. Nematodes

Jefferson Highlands N.H. June 30 '94 Stage 60. 7th white with a
 blackish line, shiny, eye black and black ringed; 2 faint brown
 shades on sides of hd. Body whitish, narrow ch. 1.50 sp. shiny
 black 2 joint cheeks subventral pl. 1 at base of feet. Reddish
 miller; within annulets, dorsal & anal processes whitish. Anal
 plate whitish with ridges shaded with dusky between.
 molt July 1 Hd 1.0 white shiny eye black. Subventral plate with 2
 dorsal with 3 blackish. Keen's Valley, New Hampshire, white ridges
 as in next stage. July 5 Hd 1.3 ± brownish white.
 On white birch, closely allied to 3U
 but seems different, solitary. Larva the
 same full of greenish web. Green anal
 plate ^{scarcely} above and ^{plainly} below marked
 with 2 black patches, jointed processes
 whitish. Segs slightly 4-annulets,
 S-V fold distinct. Hd green, eye
 black, antenae multiaannulate
 with black; body green with a little
 whitish shading below skin render-
 ing it rather opaque, creases of
 joint & all around and folds
 at base of abutives pale thin
 feet marked ^{narrow} shiny black
 to match the black shades on the
 ventral anal plate jaws brown
 w. hd 1.5 ± mm. D. vessel gives a
 dark pulsating line.
 Molt July 6 (Hd 1.8) new hd 2.2 a white shield
 of a chipmunk and a dragon. ^{the ant. hd 1.3}
 Eaten as usual on back of leaf green on July 2, 3 & 4
 July 5 Hd 1.8 (shd 1.3) green white, v. pale brown, noted eye black
 but annulets. anal plate not white below, dusky in green
 above. On white birch, same as stage 60.

Calc. .34 .48 .69 .98 1.4 rates .70
 2 annulets except for a central space on each, in
 a narrow line as in spot also a S-V fold.
 we select the dark spot representing the vent
 feet colorless. Both in last stage and now very like
 [Imago? under 3R] 4 L 48 except for hair.
 Whitish green, pilose solitary ^{on 13}
 willow, Keen's Valley, July 13, 1894 ¹⁷⁶
 just appearance of back of leaf. Whitish
 green, a white ad-d. and stg hair
 produced by edges of d-vessel & tracheal
 hair supplemented by a few white
 granules under skin laterally. Segs
 3-annulets with conspicuous warts
 on each annulet bearing short white
 pile. Feet 6-1, 13. Ten feet colorless
 outwardly, greenish at base. Hd
 same color as body, eye & mouth
 black, w. 1.6 ± (sh. hd 1.4)
 Molt July 23 (Hd 1.6) new hd 1.6 smooth 3-
 annulets greenish paraffin, traces of
 white shaped dusky eye black
 On woolly willow Jefferson Highlands N.H. June 16 '95 Hd 0.5 pale
 green, eye & mouth black. Body pale green, not yellow tubercle
 enclosures many fine dense pile; S-V region & feet being clean
 molt June 27 Hd .7 all parts more densely pale pilose. Edges of
 d-vessel faint, shiny white on white
 another hd 1.0 Hd whitish green showing d. tracheal hair. Body
 as in 1st stage. Base whitish, eye black, jaws brown
 July 1 (Hd 1.2) new hd same pale blackish at base, eye black
 and greenish paraffin shaded with black on the 3rd

4M

Solitary on raspberry eating whole leaf
Kearney, July 15 1894. Hd greenish
white, eye in large black spot. A
T-shaped blackish patch on vertex
the broad part above clypeus. W. 2.2 mm ±
Seps 6 annulate, feet 6-13. Body chiefly
shaded with blackish above spiracles
except in a festooned whitish sd line
the pair almost cutting out a series
of elliptical segmentary d patches.
Touches of dirty black in s-v folds, base
of feet and end of 13 on a whitish
ground color. Not at all shiny. A
little very minute pile on head
and body but not pilose. The lower
border of d shading is emphasized by
a series of dirty black patches. The
feet clean except black patch at base
most (Abd. 24) same but shiny to T
black marks pale, body translucent
and various tinged (pinkish purplish)

4N

Very young leaves of black oak, eating the
whole leaf down irregularly. Head inverted
but held by the feet and flap up abd.
feet 6-11, 13 but very small, nearly about
none of them used, the feet large. Body
smooth, stiff as if blown, shiny
colored, the feet showing green. Seps
annulate into 4 annulate by creases
and incised. s-v fold prominent in
center of seg. giving fluted outline
which is very evident. Hd. colored tinged
with blackish (.6 mm) or brownish (.8 mm)
especially below. Eye black, mouth brown
& little fine pile on head.
Hd. and body black. legs transparent and
with distinct blackish dots in 3 trans.
rows per seg. Hd. grayish tinged .8 mm
smooth, a little shiny. s-v fold scarcely
prominent. Made a watery dirt (see below)
(see below)

Acordulicera dorsalis Say
McKell.

4M

Solitary on raspberry eating whole leaf
Kearney, July 15 1894. Hd greenish
white, eye in large black spot. A
T-shaped blackish patch on vertex
the broad part above clypeus .w. 2.2 mm ±
Seps 6 annulate, feet 6-13. Body chiefly
glabrous with blackish above spinous
except in a festooned whitish sd line
the pair almost cutting out a series
of elliptical segmentary d patches.
Touches of sooty black in s-v folds, base
of feet and end of 13 on a whitish
ground color. Not at all shiny. A
little very minute pile on head
and body but not pilose. The brown
shade of d. shading is emphasized by
a series of sooty black patches. The
feet clean except black patch at base
most (Hbd. 2.4) Same but shiny to T
black more pale, body hamulate
and more tinged (pinkish / rufous)

4N

On very young leaves of black oak, eating the
whole leaf down irregularly. Head in ventral
but held by the feet and flap up abd.
Feet 6-11, 13 but very small, nearly about
same of them used, the feet large. Body
smooth, stiff as if blown, shiny
columns, the feet showing green. Seps.
annulate into 8 annulets by creases
not incised. S-v fold prominent in
center of seg. giving fluted outline
blackish very evident. Hd. columns tinged
with blackish (.6 mm) or brownish (.8 mm)
especially below. Eye black, mouth brown
& little fine pile on head
Hd. and black. legs transparent and
with distinct blackish dots in 3 trans.
rows per seg. Hd. grayish tinged .8 mm
smooth, a little shiny. S-v fold a small
prominent. Made a watery dirt (80 lbs
seen)

Acordulicera dorsalis Say
McKell.

40A Little on raspberry yellow on highlands. N.Y. July 1 1893. Hd. 3 black. Body whitish. Thorax slightly enlarged. Sclerites strongly marked. Hd. 4 pale brown, eye black. Body annular. Moet July 8 Hd. 6.5 whitish, not accented. tinged. eye black. Hd. 8 whitish, subdorsal shade in d and arns black eye & behind it. Body same as before. Second d. above sky blue. Moet July 15 Hd. 10 whitish, subdorsal shade black; eye black. Third whitish, head also a faint black dorsal dot. Moet July 20 Hd. 1.3 Hd. whitish, head over vertex eye black. Body whitish with a lateral dusky bluish shade band, in dorsally a line. a small large dusky spot on anal plate. Auff all wings in black middle distal, small black dot on anal plate. Hd. pink brown with black. Moet Aug 4 (during jacket) yellow, pale 40 brown, tan brown in venter, a black band at base of feet. Moet Aug 14 1896 = 5X

On raspberry. Hd large, shiny reddish
 a little dusky on vertex and clypeus
 eye on black spot, jaw black. W. 2.
 Feet moderate, abd one large,
 6-13. D. sepia not shiny greenish
 a little trace of bloom, ending
 in a lateral arrowy black line
 same or less distinct. Below at
 vertex & legs, pale hair, yellow
 a little suffused by white bloom
 immaculate with dusky black
 dots on sr folds. Seps. indistinctly
 bannulate the folds showing as
 whitish creases. Rolls up in a ball
 and falls off at slightest provocation
 molt 6.5 Aug Shiny annulate, green
 above, whitish below with a trace
 of gray marking joining of coxae lateral
 Rd same

Imago May 29 Wings aborted but =
Stenogygaster apicalis (HSD)

